

DEGREE PROGRAM TITLE: COMPUTER SCIENCE TECHNOLOGY

AFSC: 3D0X4, Computer Systems Programming

PROGRAM GOAL: The goal of the **CCAF Computer Science Technology Degree Program** is to prepare graduates for long-term careers as computer science professionals in the information technology field. The program prepares students for entry-level employment as computer programmers and analysts. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Determine, analyze, and develop requirements for software systems through interpreting standards, specifications and user needs.
2. Determine and recommend the most reasonable approach in designing new systems or modifying existing systems.
3. Translate system specifications and requirements into program code and database structures, and implement design functionality as software coders.
4. Analyze output products and debug source code to isolate and correct errors in program logic, syntax, and data entry.
5. Prepare system graphical descriptions, standard language statements, workload data, and present and propose cost.
6. Implement security techniques designed to preclude unauthorized access to computer data and to reduce computing resource misuse.
7. Design, develop, maintain and execute test plans for formal qualifications testing, system integration testing, regression testing and verification, validation and acceptance testing as software testers.
8. Manage software or database components, specifications, test plans, procedures and results, and revision history to ensure systems in use meet user requirements.